

PAST Comes to Walnut Canyon National Monument

In September 1994, Flagstaff Area Parks (Flagstaff, AZ.) was faced with extensive repairs on the two historic Civilian Conservation Corps (CCC) rustic houses at Walnut Canyon National Monument. The park took an unprecedented step of turning the project into training. Roofing deterioration, unsightly accretions to the buildings, masonry failures, structural deficiencies, and peeling paint were among the litany of itemized deferred maintenance tasks waiting for funding. Recently added to the NPS List of Classified Structures, these two stone, timber, and frame houses represent some of the best of what the Park Service assembled for staff lodging during the depression era.

The parks gamble paid off. Two weeks, 27 ready craftsmen and craftswomen, a pile of lumber, a stack of shingles, nails, stone, cement, and a few gallons of paint got the project going. When the last truck pulled out Friday afternoon, the park had a completed project—20 Preservation and Skills Trainees had picked up new skills, and a sense of accomplishment was shared around.

This cooperative effort was launched by the Williamsport Preservation Training Center (WPTC), Flagstaff Area Parks, and the Southwest Cultural Resources Center now called the Intermountain Cultural Resources Center. WPTC used this project as a hands-on training for

National Park Service employees who participated in the first Preservation and Skills Training (PAST) Program (1993-1995). The training center was charged with the responsibility of managing PAST. This project was accomplished during the third Skills Training Workshop for the PAST trainees and mentors. The training session benefitted the park directly by accomplishing an identified and significant project within the park that otherwise would have taken several years of piecemeal steps.

PAST represents a new National Park Service initiative to train maintenance personnel in craft and preservation skills leading to a Historic Preservation Maintenance worker certificate. This first program was comprised of 18 trainees and 9 mentors from throughout the national park system. The trainees build their knowledge of preservation maintenance and skills over the course of two years with the guidance of mentors experienced in preservation craftsmanship. Mentors and trainees were selected in a match up designed to provide a suitable development of skills in either the masonry or carpentry fields. Each mentor took on two trainees and individually worked with them on specific mutually agreed upon projects. The majority of the work during the two-year program was done in the trainees' park. During the course of the two years, four total group classroom sessions of several days followed by hands-on sessions from 6-8 days were held. Each group session emphasized selected preservation problems and techniques.

Session three of the 1994 class, held at Walnut Canyon, combined rustic architectural history, documentation, project planning, estimating, project management, framing and trim carpentry, structural stabilization, shake roof replacement, repointing masonry, stone masonry repair, painting, and safety issues.

In 1993, the need to replace the roofing on the two structures HB-1 and HB-2 was well recognized. The harsh environment in Flagstaff had not been gentle on the cedar shakes. They were extremely deteriorated (desiccated, cracking, eroded, and loose) and deficiencies were noted in the chimneys, gutters, and trim. Both houses had nonhistoric garages constructed with flat built up roofs that were leaking. These flat roofs were unsympathetic to the character-defining quality of

PAST program participants tear off roof at Residence No. 1.



the historic buildings. Deterioration of stone masonry patios, paint, and structural components were also identified.

The park maintenance staff began the work of repairing the deficiencies in the Spring of 1994. During the initial process of repair, the logic of incorporating the re-roofing into the PAST program surfaced. WPTC chief Tom McGrath visited the site in early summer with SWR Supervisory Exhibit Specialist Jake Barrow, Park Facility Manager Richard Sullivan, B&U Foreman Gary Reeb, and Park Maintenance Worker Pam Meck to plan the project. An agreement was reached regarding clear delineation of responsibilities. WPTC provided a design package and the park

Work in progress: new roof framing system being installed. Photo by Christina Armijo.



was responsible for acquiring all materials for the job. Section 106 of the Historic Preservation Act of 1966 (compliance) and preparation for the project was completed in the summer prior to work. The preliminary field work helped to identify specific areas of concern. Design and preservation planning assistance was provided by the WPTC and the Division of Conservation in the Cultural Resources Center.

By June, preparation work was underway to remove the unsightly non-historic breezeways, modify gutter boxes for new shop-made inserts, and manage a contract to have shallow-pitched roof areas recovered with new built-up roofs. Later in the summer demolition of garage roofing using tarps to keep inclement weather out was timed ahead to have the site as ready as possible. Dutchman repairs were made to a beam and rotted fascia boards were replaced with salvaged boards from the demolished breezeway. These tasks were realized to be essential precursors to the larger project. Getting them out of the way

Attention to detail: completed chimney has been re-pointed and re-flashed. Photo by Pam Meck.

cleared the deck for PAST. Further preparations included analyzing mortar samples, using reduction techniques to determine appropriate new compatible mixes. Replacement stones for the patios were acquired. Lumber and 52 squares of Certi-ridge tapered sawn fire retardant treated red cedar shakes 24" long were ordered based on site and documentary evidence of exposure. Tom McGrath took on the task of designing a compatible appearance for the garages. Garage trusses matching the 4:12 pitch of the houses were acquired. More than compatibility, these new garage roofs were meant to have improved longevity and reduced cyclic repair.

Project planning included acquisition of all materials, supplies, and special tools required. As was usual in PAST training, craftspeople brought their own hand tools. Park scaffolding was insufficient for the whole job and additional sets were acquired from Casa Grande National Monument and Grand Canyon National Park. Denver Service Center Structural Engineer Steve Schremp was contacted to review the structural capacity of the roofing systems. He performed an inspection of the structures and produced detailed recommendations for repairs which included the installation of glue lam beams under the rafters for additional live loading needs. The buildings had not benefited from engineering at construction and while the rafters seemed adequate, safety could not be assured.

Training began on Sept. 19 with Superintendent Sam Henderson providing an introduction to the park overlooking the spectacular ruins of the Canyon. During the course of the two weeks, ample time was made for participants



to see the sites in the park. Also, one day was set aside toward the end to take participants to nearby Wupatki National Monument and into the Grand Canyon to see historic preservation projects underway at these two units. The first two days of introductory classroom work concluded and the group commenced the field work on Wednesday, September 21.

Jake Barrow managed the day-to-day operation of the project with assistance from Pam Meck. Teams were assembled starting with mentors and their respective trainees. As the work progressed, trainees moved around the project to get different experiences.

Labor was divided among separate groups accomplishing the garages, the house roofs, and the two house masonry projects respectively. At the outset of each day a safety meeting was held

to review the safety program and discuss any new issues.

In the five days of actual hands-on work sessions, considerable accomplishments were realized. Twenty-seven individuals were organized and provided with tools and supplies to carry out pre-planned tasks. Pitched roofs at 4:12 were built on both garages, including finished gable ends. Old roofing shingles were demolished, debris was hauled away, and approximately 4,000 square feet of cedar shake roof was installed. Custom roof vents were built on site. Custom supplemental trusses were built on site. Deteriorated sandstone was replaced on porch patio areas. Board and batten was restored on gable ends of both houses replacing non-historic shingling. Rotten sections in old garage decking, support members, trim, gutter boards, and raker boards were repaired and replaced. Two chimneys were reflashed, repointed, and had new caps built. Glulam beams were installed to DSC engineer specifications in residence #2. (Residence #1 beams were installed later). Structures were primed and painted. Classroom training was accomplished. Planing and preparations turned what could have been months of work into five fast-moving efficient days. The weather cooperated and not one minute of time was lost.

A contented Superintendent and Facility Manager reviewed the results and proclaimed the training project a great success. The total team effort resulted in a high quality product exceeding work initially planned by the park. Skills brought by the individuals, both mentors and trainees, were encouraged to fruition. High energy people, thinkers, master craftspeople, designers, and learners all got something from the group dynamic.

The Park accomplished extensive work both before the training and after the training which, together with the accomplishments of PAST, represented a major preservation achievement by the National Park Service. Two very valuable resources have a new lease on life for many years to come.

Jake Barrow is a Supervisory Exhibit Specialist and Project Manager for the Conservation Program in the Intermountain Cultural Resources Center. He served as Mentor in the first PAST program.

Pam Meck is a Maintenance Worker for Flagstaff Area Parks stationed at Walnut Canyon. She received her PAST certificate in October 1995.

The accomplishments of this project are the direct result of the effort put forth by the participants in the 93-95 PAST program. Thus, we want to identify those people in addition to the authors who did the work and their respective parks at the time.

Mentors:

Bruce Kozlowski, Fort Larned National Historic Site
Keith Edge, Grant-Kohrs Ranch National Historic Site
Dan Brown, Golden Gate National Recreation Area
Charlie Masten, North Atlantic Preservation Center
Frank Doyle, Independence National Historical Park
Mike Fortin, North Atlantic Preservation Center
John Wood, Charles Pinckney National Historic Site
Lisa Sasser, Washington Office, National Park Service

Trainees:

Mike McNerney, Bent's Old Fort National Historic Site
Rodney Prioleau, Fort Sumter National Monument
Michele Cefola, Harry S Truman National Historic Site
Ken Coss, San Juan Island National Historical Park
Bill Thompson, Historic Preservation Training Center
Christina Armijo, Pecos National Monument
Darren Bryant, Guadalupe Mountains National Park
Rick Maestas, Manassas National Battlefield Park
James Davis, Natchez National Historical Park
Joseph Temple, Colonial National Historical Park
George Barrett, Casa Grande National Monument
Steve Giese, Grant-Kohrs Ranch National Historic Site
Charles Schultheis, Golden Gate National Recreation Area
Jesse Sherrod, Fort McHenry National Monument & Historical Shrine
Sandy Eickmeyer, Petersburg National Battlefield
Doug Cap, Chiricahua National Monument
Paul Taylor, Lincoln Boyhood National Memorial
Stanley Zilinski, Lowell National Historic Park
Kent Garland, Boston National Historic Park